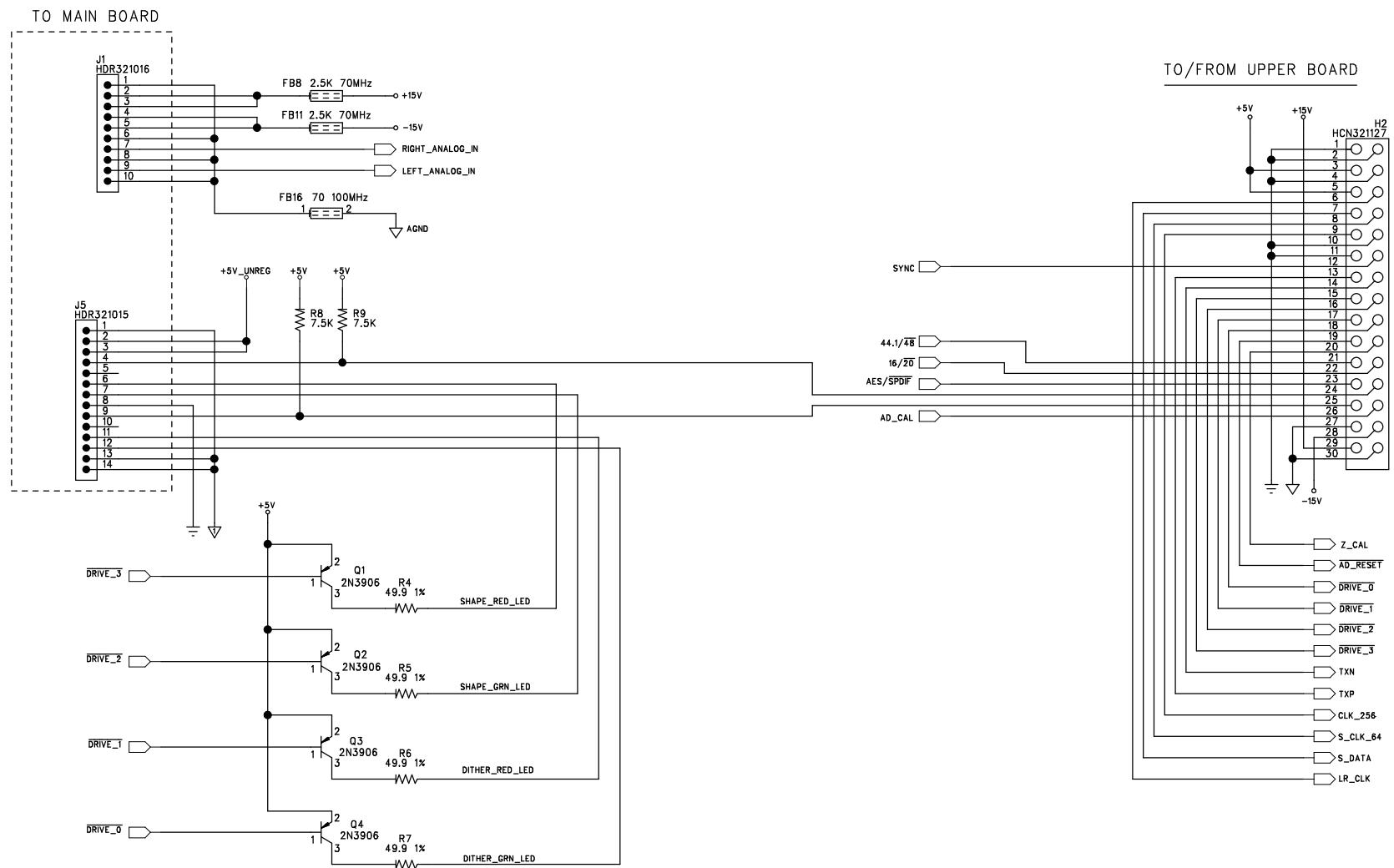
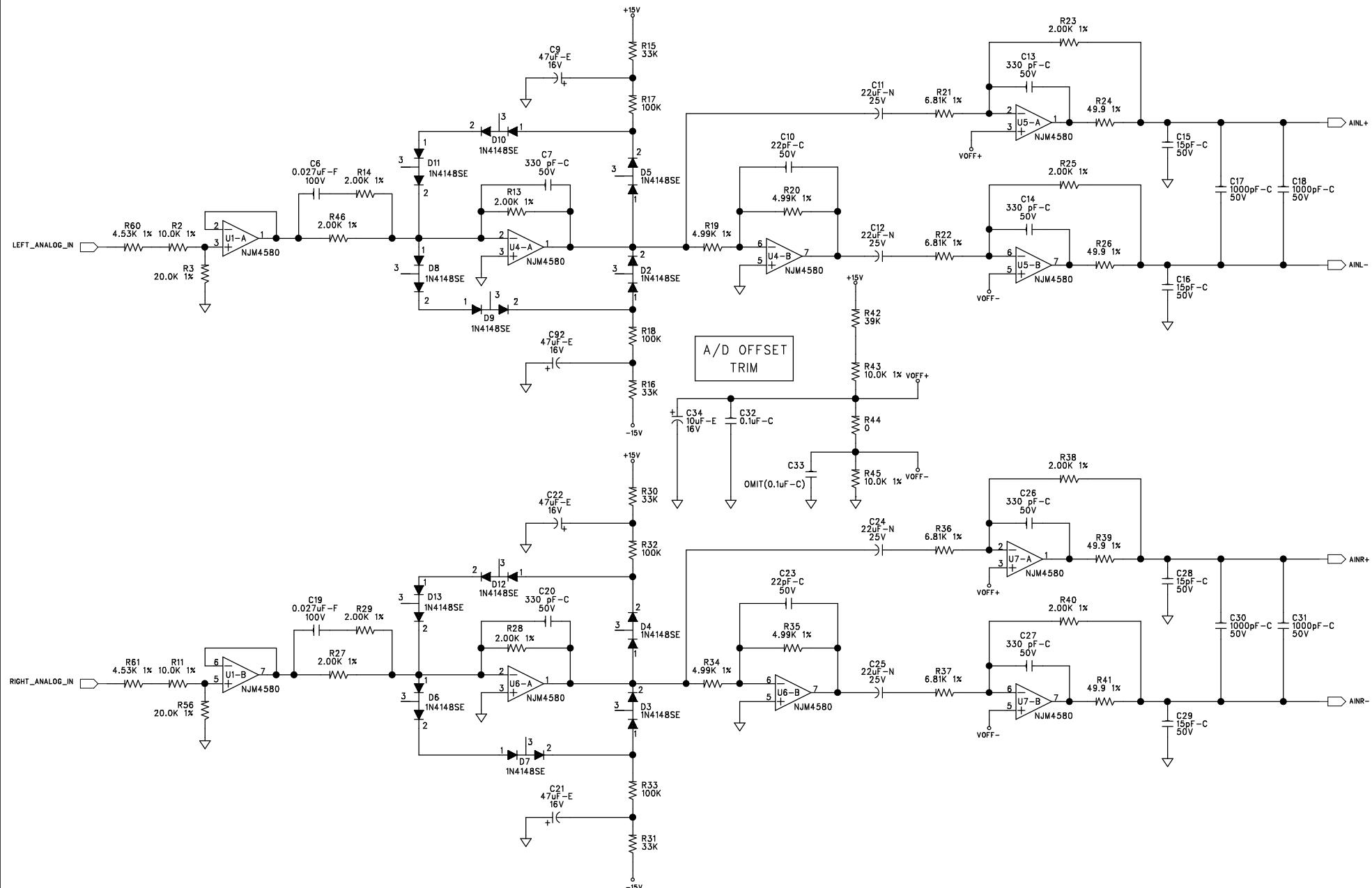


## NOTES:

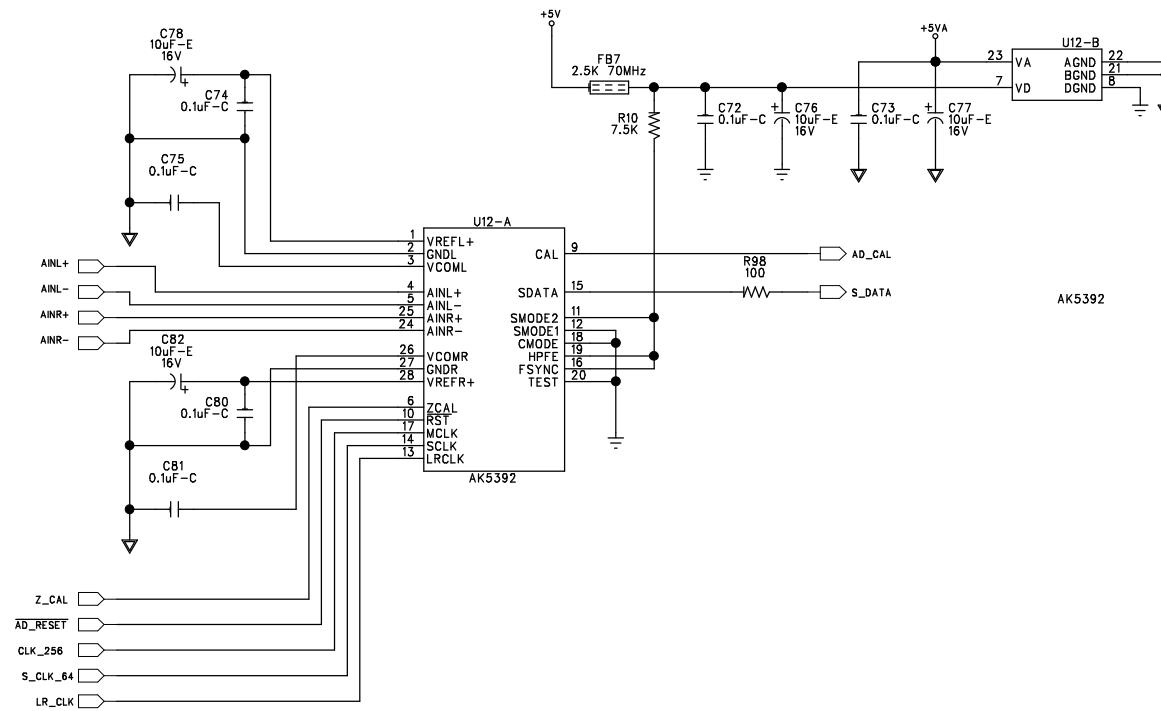
SHEET 1 TITLE PAGE MAIN PCB	SHEET 2 INTERFACE	SHEET 3 TYPE IV ANALOG	SHEET 4 A/D	SHEET 5 INPUT/OUTPUT
SHEET 6 INTERFACE – DSP	SHEET 7 PROCESSOR	SHEET 8 SYNC CONTROL	SHEET 9 POWER SUPPLY	SHEET 10 POWER GATES

a2	CHANGE C3 TO AN OMIT PART	848 DWB	10-18-99
A1	CHANGE C43, C44, C45, C46 TO 22pF	648 DWB	7-1-99
A0	PRODUCTION RELEASE	DWB	6-18-99
REV	DESCRIPTION	ECN #	DATE
REVISION HISTORY			
<b>dbx Professional Products</b>			
8760 South Sandy Parkway Sandy Utah 84070			
TITLE: dbx 504X PCB			
DESIGNER: DAVID BYBEE		DATE: 6-18-99	ENGINEER: JON DUFFIN
DRAWING NO: 05-5372-A2			REV: A2
DATE:	10-18-99	FILENAME:	055372A2.SCH
SHEET:	1	OF	10

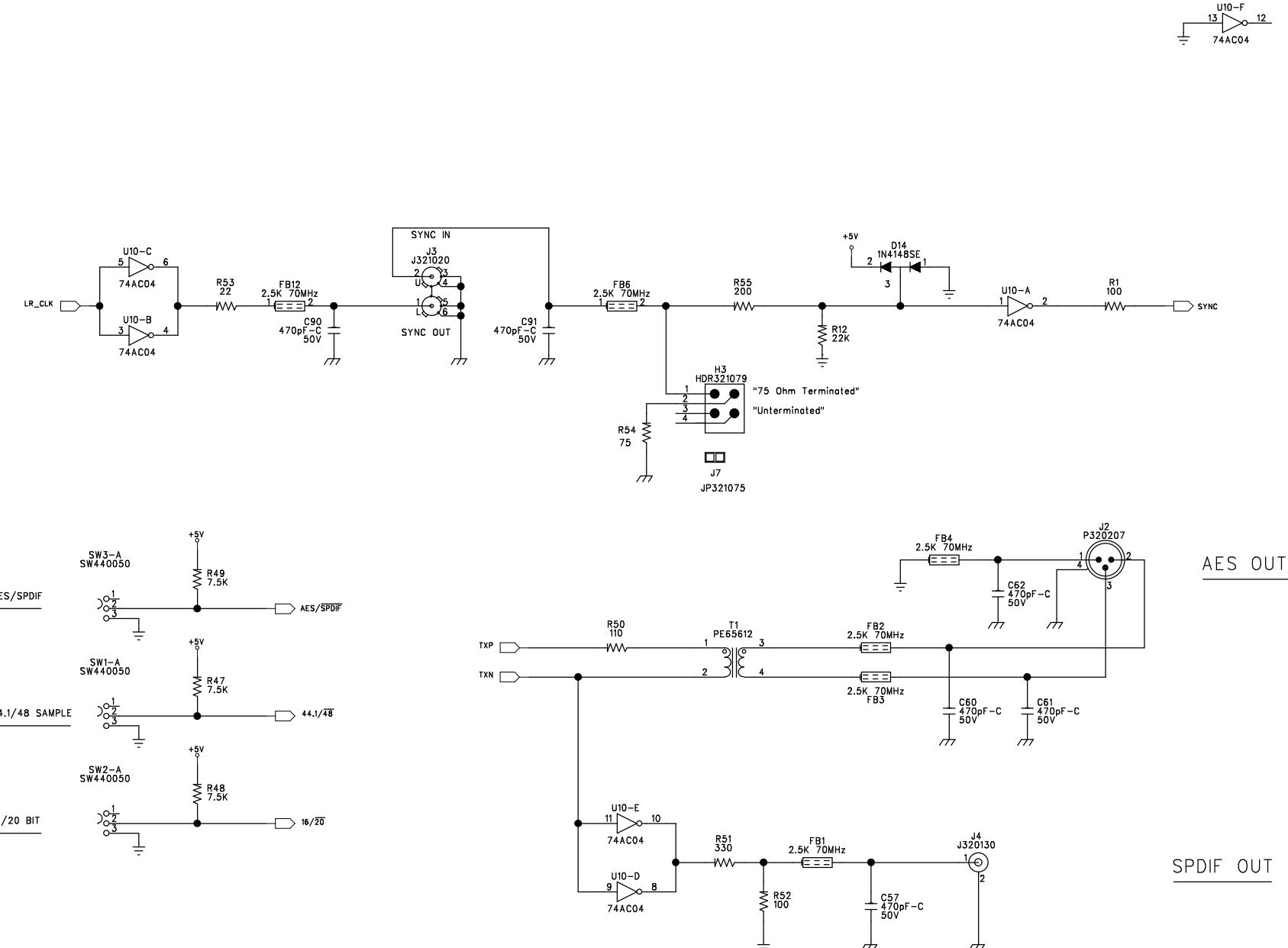




SIZE:	dbx 504X OPTION LOWER PCB	REV:
	05-5372-A2	A2
DATE:	10-18-99	TYPE IV ANALOG
SHEET:	3 OF 10	

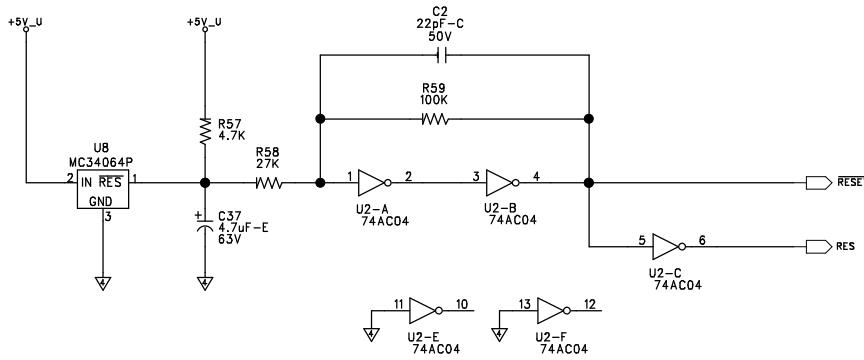
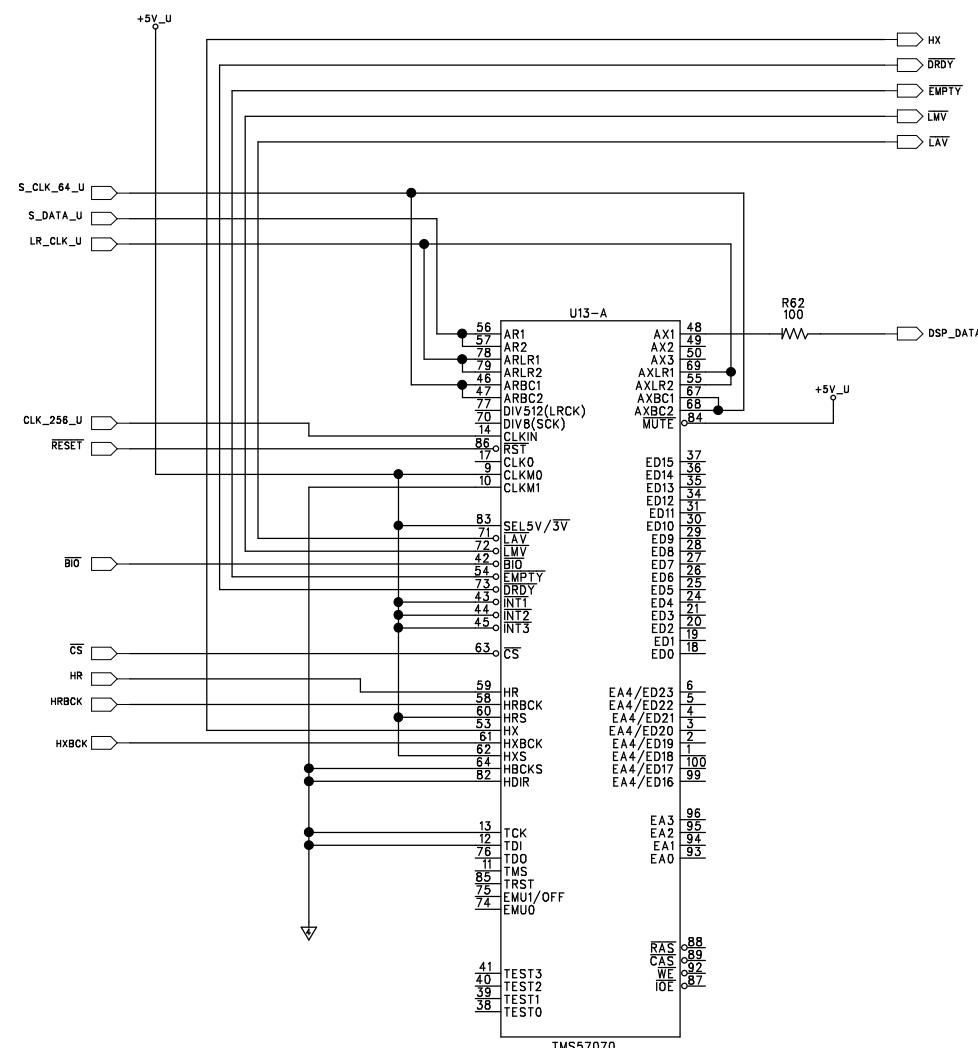
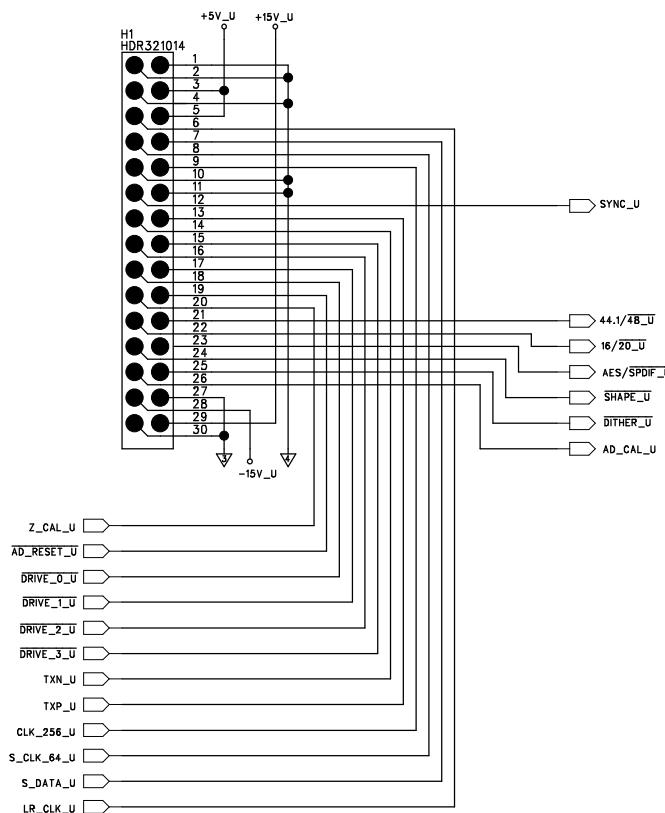


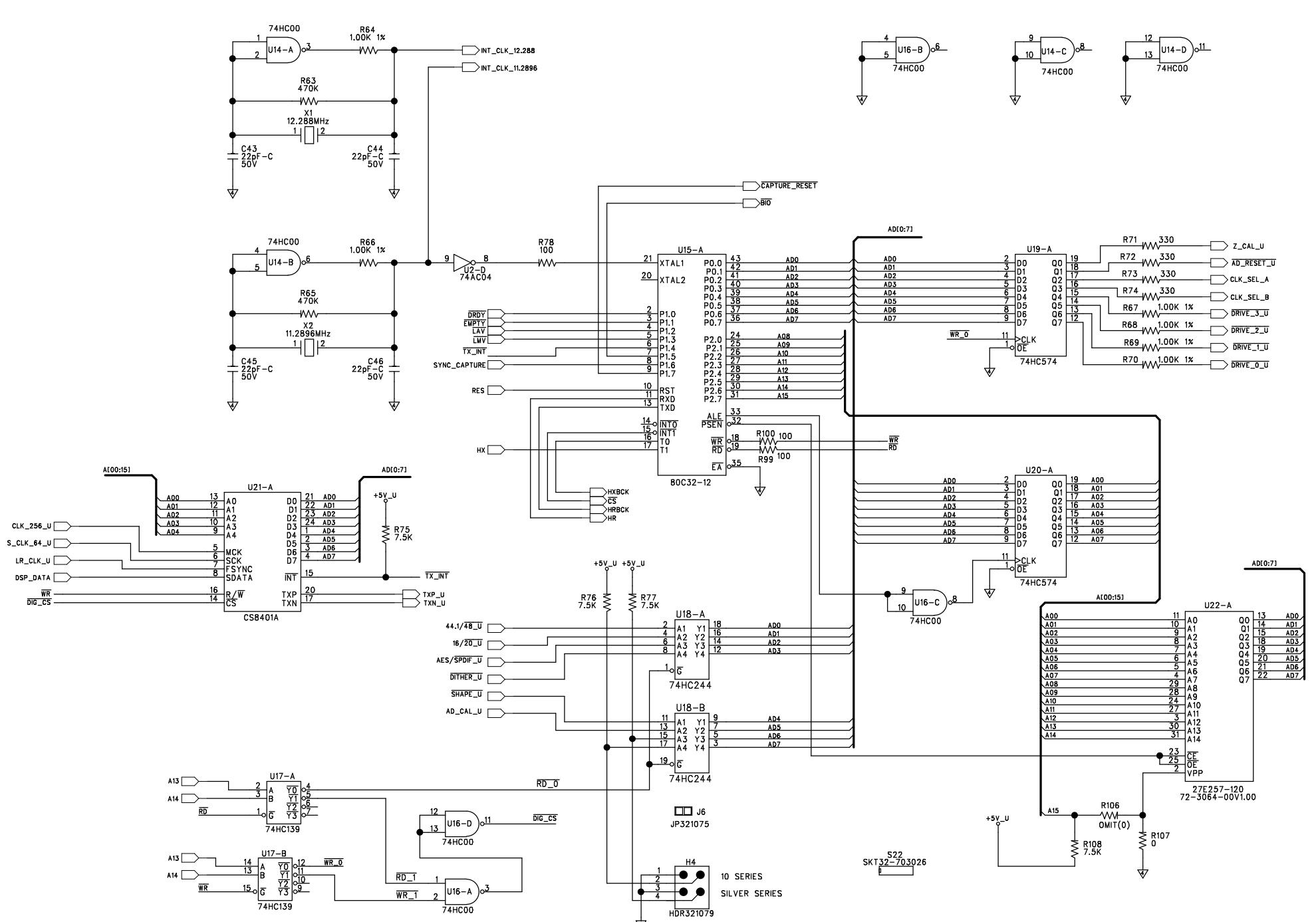
SIZE:	dbx	504X OPTION LOWER PCB	REV:
05-5372-A2			A2
DATE:	10-18-99	A/D	SHEET: 4 OF 10



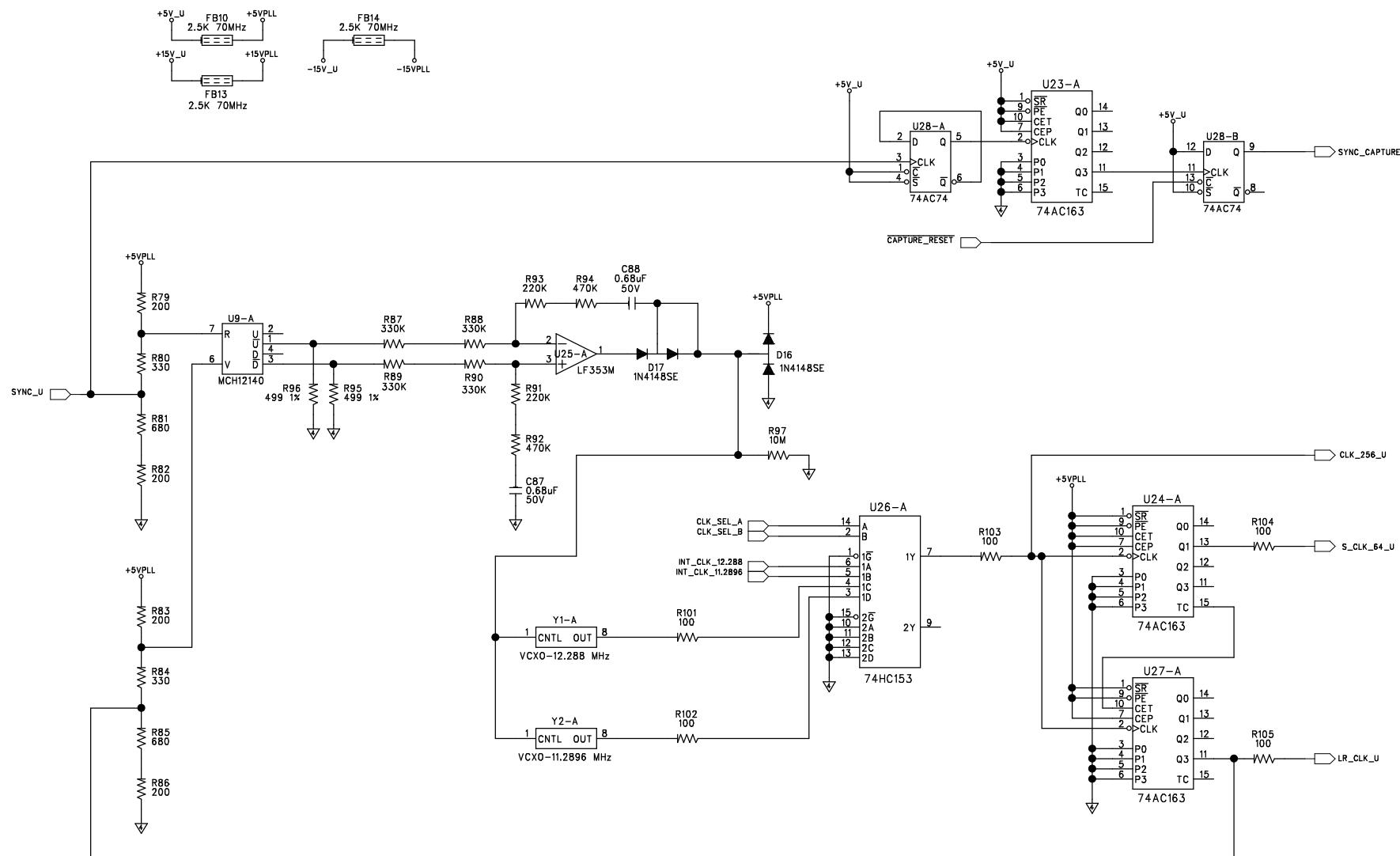
SIZE:	dbx 504X OPTION LOWER PCB	REV:
05-5372-A2		
DATE:	10-18-99	INPUT OUTPUT
SHEET:	5 OF 10	

## TO/FROM LOWER PCB

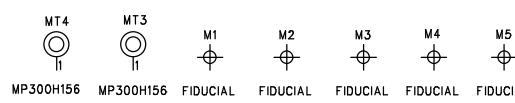




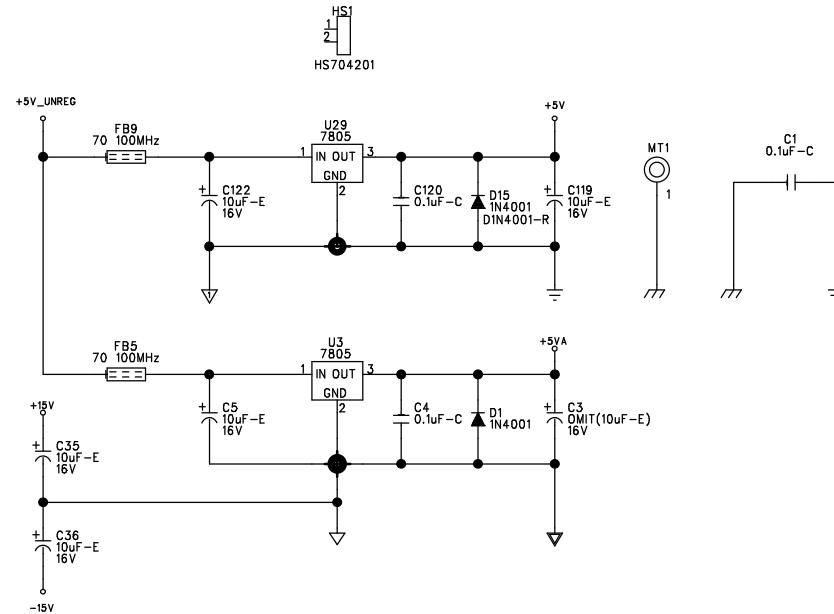
SIZE:	dbx 504X OPTION UPPER PCB	REV:
	05-5372-A2	A2
DATE:	10-18-99	PROCESSOR
		SHEET: 7 OF 10



B	A	CLK_256
0	0	INT. 12.288 MHz
0	1	INT. 11.2896 MHz
1	0	12.288 MHz (GEN FROM EXT 48 KHz)
1	1	11.2896 MHz (GEN FROM EXT 44.1 KHz)



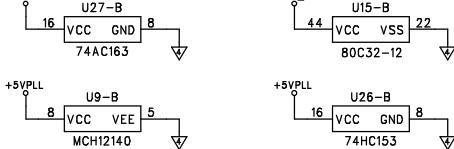
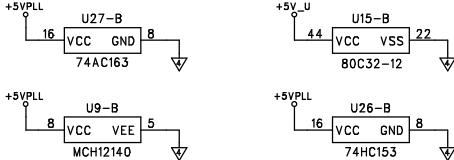
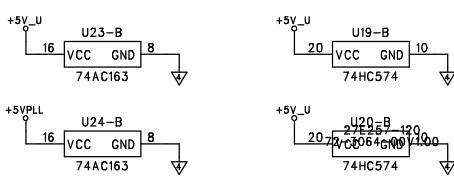
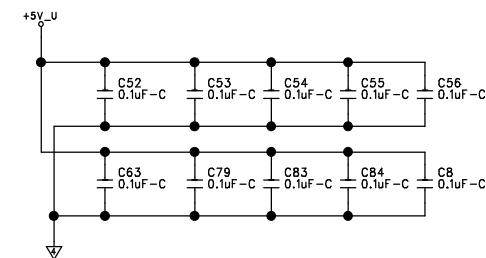
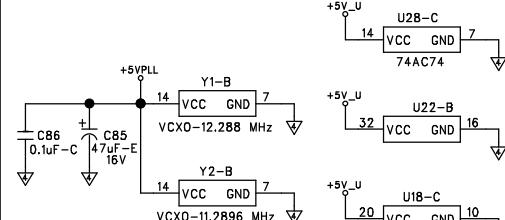
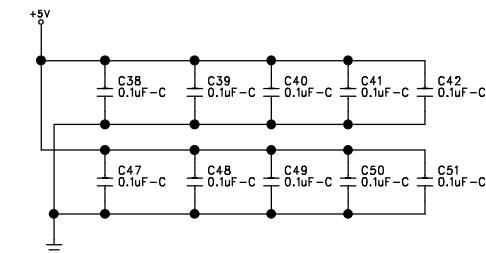
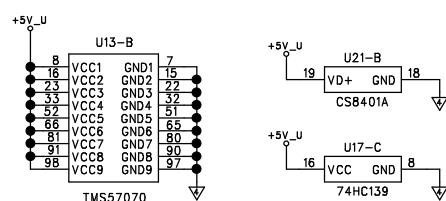
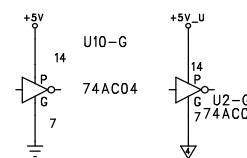
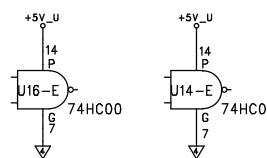
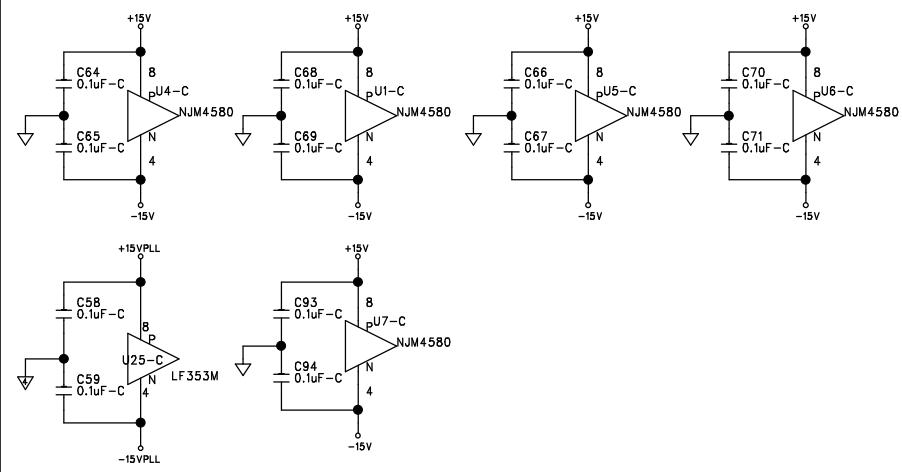
SIZE:	dbx 504X OPTION UPPER PCB	REV: A2
05-5372-A2		
DATE: 10-18-99	SYNC CONTROL	SHEET: B OF 10



MT2 M6 MH156 M7 MH156  
BRK1 BRK2 BRK3

PCB1 SC1 SC2 SC3  
80-5372-A SC340125 SC340125 SC340125

SIZE:	dbx 504X OPTION LOWER PCB	REV:
05-5372-A2		
DATE:	10-18-99	POWER SUPPLY
		SHEET: 9 OF 10



SIZE:	dbx 504X OPTION CARD		REV:
05-5372-A2			A2
DATE:	10-18-99	POWER GATES	SHEET:
			10 OF 10

## 05-5372 504X DIGITAL INTERFACE BOARD

Harman Music Group - Bill Of Materials for 055372A2.sch on Mon Oct 18 10:57:20 1999

Qty	Reference	HMG#	Description	Audit	Schematic	Part	PCB DECAL
1	PCB1	80-5372-A	PCB, 80-5372-A, 504X OPTION MAIN PCB	PT1046	80XXXXYY	PCBNULL	
3	BRK1-3	NON-PART	NON-PART, PCB ONLY, BREAKOFF PART	PT1481	BRKOFF	BRKOFF	
2	C6 C19	56-0033	CAP, 0.027uF, FILM, 100V, 5%, RFEF200, AMMO	PT1282	C0.027UF100JR	RFEF200	
43	C1 C4 C8 C32 C38-42	62-3139	CAP, 0.1uF, CER, 50V, 20%, 0805, T&R	PT1087	C0.1UC50MS	0805	
	C47-56 C58-59						
	C63-75 C79-81						
	C83-84 C86 C93-94						
	C120						
1	C33	OMIT	OMIT, CAP, 0.1uF, CER, 50V, 20%, 0805, T&R (62-3139)	PT1345	C0.1UC50MSO	0805	
2	C87-88	56-0017	CAP, 0.68uF, FILM, 50V, 5%, RFEH200, AMMO	PT1360	C0.68UF50JR	RFEH200	
4	C17-18 C30-31	62-3136	CAP, 1000pF, CER, 50V, 20%, 0805, T&R	PT1109	C1000PC50MS	0805	
10	C5 C34-36 C76-78	60-0049-01	CAP, 10uF, ELEC, 16V, 20%, RED200P, AMMO	PT1080	C10UE16MR	RED200P	
	C82 C119 C122						
1	C3	OMIT	OMIT, CAP, 10uF, ELEC, 16V, 20%, RED200P, AMMO, (60-0049-01)	PT1759	C10UE16MRO	RED200P	
4	C15-16 C28-29	62-3128	CAP, 15pF, CER, 50V, 5%, 0805, T&R	PT1106	C15PC50JS	0805	
7	C2 C10 C23 C43-46	62-3134	CAP, 22pF, CER, 50V, 5%, 0805, T&R	PT1107	C22PC50JS	0805	
4	C11-12 C24-25	60-0402	CAP, 22uF, ELEC, NON-POL, 25V, 20%, REG200, AMMO	PT1084	C22UN25MR	REG200	
6	C7 C13-14 C20	62-3131	CAP, 330pF, CER, 50V, 10%, 0805, T&R	PT1284	C330PC50KS	0805	
	C26-27						
1	C37	60-0404	CAP, 4.7uF, ELEC, 63V, 20%, REE200P, AMMO	PT1105	C4.7UE63MR	REE200P	
6	C57 C60-62 C90-91	62-3133	CAP, 470pF, CER, 50V, 10%, 0805, T&R	PT1086	C470PC50KS	0805	
5	C9 C21-22 C85 C92	60-0054-01	CAP, 47uF, ELEC, 16V, 20%, REE200P, AMMO	PT1108	C47UE16MR	REE200P	
2	D1 D15	70-0000	DIO, 1N4001, 50V, 1 AMP, RDB200, AMMO	PT1003	D1N4001-R	RDB200	
15	D2-14 D16-17	70-0113	DIO, MMBD4148SE, DUAL DIODE, 75V, 600mA, SOT-23, T&R	PT1326	D1N4148SE-S	SOT-23	
5	M1-5	NON-PART	FIDUCIAL, TARGET FOR AUTO INSERTION	PT1271	FIDUCIAL	FIDUCIAL	
1	H2	32-1127	HCN, CONN, 30 PIN FEMALE, VERT MOUNT	PT1305	HCN321127	HC152F	
1	H1	32-1014	HDR, 30 PIN, SHROUDED, VERT MOUNT	PT1093	HDR321014	HC152S	
1	J5	32-1015	HDR, 14 PIN, VERTICAL, 2MM, LOCKING, SHROUDED	PT1265	HDR321015	HC14079L	
1	J1	32-1016	HDR, 10 PIN, VERTICAL, 2MM, LOCKING, SHROUDED	PT1266	HDR321016	HC10079L	
2	H3-4	32-1079	HDR, 4 PIN, DUAL ROW, .1 SPC	PT1414	HDR321079	HC22	
1	HS1	70-4201	HEATSINK, TO-220, VERT	PT1346	HS704201	HS704201	
1	J4	32-0130	CON, JACK, RCA PHONO, SNGL RA, SCRE MNT, GOLD, BLK INS	PT1606	J320130	RCA-RT-1	
1	J3	32-1020	CON, JACK, BNC, DUAL, VERTICAL PC MOUNT, RT ANGLE	PT1520	J321020	J321020	
2	J6-7	32-1075	JUMPER, MINI, .100 SPC	PT1415	JP321075	PCBNULL	
3	FB5 FB9 FB16	26-0215	IND, FERRITE BEAD, 70 OHM @ 100MHZ , RIC200, AMMO	PT1262	LFB260215	RIC200	
12	FB1-4 FB6-8 FB10-14	26-0217	IND, FERRITE BEAD, 2.5K OHM @ 70MHZ, 0805, T&R	PT1261	LFB260217	0805	
1	AGND3	NON-PART	NON-PART, MECCA GND/PWR TIE POINT, 3 POS	PT1303	MECCA3	MECCA3	
1	AGND2	NON-PART	NON-PART, MECCA GND/PWR TIE POINT, 4 POS	PT1043	MECCA4	MECCA4	
2	M6-7	NON-PART	NON-PART, MOUNTING HOLE, 0.156" NON-PLATED,#6	PT1044	MH156	MH156	
4	MT1-4	NON-PART	NON-PART, MECHANICAL PLATED HOLE, 300 PAD, 156 HOLE, #6	PT1045	MP300H156	MP300H156	
1	J2	32-0207	CON, PLUG, XLR, CHASSIS PCB MOUNT, HORIZONTAL, B SERIES	PT1217	P320207	XLRM-1	
4	Q1-4	70-1059	XSTR, 2N3906, PNP, SOT-23, T&R	PT1057	Q2N3906-S	SOT-23	
2	R44 R107	50-1531	RES, 0 OHM, 5%, 1/10W, 0805, T&R	PT1099	R0-C5-0805	0805	
1	R106	OMIT	OMIT, RES, 0 OHM, 5%, 1/10W, 0805, T&R (50-1531)	PT1006	R0-C5-08050	0805	
6	R64 R66-70	52-4505	RES, 1.00K OHM, 1%, 1/10W, 0805, T&R	PT1037	R1.00KC1-0805	0805	
4	R2 R11 R43 R45	52-4500	RES, 10.0K OHM, 1%, 1/10W, 0805, T&R	PT1034	R10.0KC1-0805	0805	
12	R1 R52 R62 R78	50-1515	RES, 100 OHM, 5%, 1/10W, 0805, T&R	PT1018	R100-C5-0805	0805	
	R98-105						
5	R17-18 R32-33 R59	50-1504	RES, 100K OHM, 5%, 1/10W, 0805, T&R	PT1096	R100KC5-0805	0805	
1	R97	50-1539	RES, 10M OHM, 5%, 1/10W, 0805, T&R	PT1032	R10MC5-0805	0805	
1	R50	50-1533	RES, 110 OHM, 5%, 1/10W, 0805, T&R	PT1100	R110-C5-0805	0805	
10	R13-14 R23 R25	52-4506	RES, 2.00K OHM, 1%, 1/10W, 0805, T&R	PT1038	R2.00KC1-0805	0805	
	R27-29 R38 R40 R46						
2	R3 R56	52-4501	RES, 20.0K OHM, 1%, 1/10W, 0805, T&R	PT1035	R20.0KC1-0805	0805	
5	R55 R79 R82-83 R86	50-1510	RES, 200 OHM, 5%, 1/10W, 0805, T&R	PT1013	R200-C5-0805	0805	
1	R53	50-1532	RES, 22 OHM, 5%, 1/10W, 0805, T&R	PT1030	R22-C5-0805	0805	
2	R91 R93	50-1514	RES, 220K OHM, 5%, 1/10W, 0805, T&R	PT1017	R220KC5-0805	0805	
1	R12	50-1522	RES, 22K OHM, 5%, 1/10W, 0805, T&R	PT1126	R22KC5-0805	0805	
1	R58	50-1527	RES, 27K OHM, 5%, 1/10W, 0805, T&R	PT1027	R27KC5-0805	0805	
7	R51 R71-74 R80 R84	50-1517	RES, 330 OHM, 5%, 1/10W, 0805, T&R	PT1020	R330-C5-0805	0805	

## 05-5372 504X DIGITAL INTERFACE BOARD

4	R87-90	50-1519	RES, 330K OHM, 5%, 1/10W, 0805, T&R	PT1022 R330KC5-0805	0805
4	R15-16 R30-31	50-1512	RES, 33K OHM, 5%, 1/10W, 0805, T&R	PT1015 R33KC5-0805	0805
1	R42	50-1528	RES, 39K OHM, 5%, 1/10W, 0805, T&R	PT1028 R39KC5-0805	0805
2	R60-61	52-4510	RES, 4.53K OHM, 1%, 1/10W, 0805, T&R	PT1130 R4.53KC1-0805	0805
1	R57	50-1509	RES, 4.7K OHM, 5%, 1/10W, 0805, T&R	PT1012 R4.7KC5-0805	0805
4	R19-20 R34-35	52-4511	RES, 4.99K OHM, 1%, 1/10W, 0805, T&R	PT1041 R4.99KC1-0805	0805
4	R63 R65 R92 R94	50-1523	RES, 470K OHM, 5%, 1/10W, 0805, T&R	PT1025 R470KC5-0805	0805
8	R4-7 R24 R26 R39	52-4502	RES, 49.9 OHM, 1%, 1/10W, 0805, T&R	PT1036 R49.9-C1-0805	0805
	R41				
2	R95-96	52-4504	RES, 499 OHM, 1%, 1/10W, 0805, T&R	PT1102 R499-C1-0805	0805
4	R21-22 R36-37	52-4515	RES, 6.81K OHM, 1%, 1/10W, 0805, T&R	PT1281 R6.81KC1-0805	0805
2	R81 R85	50-1511	RES, 680 OHM, 5%, 1/10W, 0805, T&R	PT1014 R680-C5-0805	0805
10	R8-10 R47-49 R75-77	50-1521	RES, 7.5K OHM, 5%, 1/10W, 0805, T&R	PT1024 R7.5KC5-0805	0805
	R108				
1	R54	50-1535	RES, 75 OHM, 5%, 1/10W, 0805, T&R	PT1101 R75-C5-0805	0805
3	SC1-3	34-0125	SWITCH CAP, BLACK, ROUND	PT1354 SC340125	SC340125-FPE
1	S22	70-3026	SOCKET, PLCC 32, PLCC/R-32SKT	PT1419 SKT32-703026	PLCC/R-32SKT
3	SW1-3	44-0050	SWITCH, DPDT, MINI IN-OUT, 6 PIN, E-SWITCH	PT1256 SW440050	SW440050
1	T1	26-0263	TRANSFORMER, DIGITAL AUDIO DATA TRANSMISSION	PT1263 TR260263	XFR-2
2	U3 U29	70-4014	V-REG, 7805, +5V, 1.5 AMP, TO-220	PT1591 U7805	TO220(IGO)-V
2	U2 U10	72-5426	IC, 74AC04, HEX INVERTER, SO14, T&R	PT1325 U74AC04-S	SO14
3	U23-24 U27	72-1459	IC, 74AC163, SYNC PRESETTABLE 4BIT BIN. CNTR, SO16, T&R	PT1347 U74AC163-S	SO16
1	U28	72-5425	IC, 74AC74, DUAL FLIP-FLOP, D-TYPE, SMT SO14	PT1247 U74AC74-S	SO14
2	U14 U16	72-5418	IC, 74HC00, QUAD 2-INPUT NAND, SO14, T&R	PT1348 U74HC00-S	SO14
1	U17	72-5420	IC, 74HC139, DUAL 2 TO 4 LINE DECODER, SO16, T&R	PT1349 U74HC139-S	SO16
1	U26	72-1430	IC, 74HC153, DUAL 4-LINE TO 1-LINE DATA SEL./MUX, SO16, T&R	PT1350 U74HC153-S	SO16
1	U18	72-1111	IC, 74HC244, OCTAL BUFFER LINE DRIVER W/3-STATE OUTPUTS, SO20W, T&R	PT1351 U74HC244-S	SO20W
2	U19-20	72-1263	IC, 74HC574, FLIP-FLOP, EDGE TRIGGERED, OCTAL, SO20W, T&R	PT1352 U74HC574-S	SO20W
1	U15	72-3162	IC, 80C32-12, 8 BIT MICROCONTROLLER, PLCC44	PT1579 U80C32-12-P	PLCC-44
1	U12	72-1464	IC, AK5392, DUAL 24BIT ADC, SO28W	PT1555 UAK5392-S	SO28W
1	U21	72-3019	IC, CS8401A, DIGITAL AUDIO TRANSMITTER, SO24W	PT1410 UCS8401A-S	SO24W
1	U25	72-4032	IC, LF353M, DUAL,WIDE BANDWIDTH JFET INPUT OPAMP, SO8	PT1252 ULF353M-S	SO8
1	U8	70-5004	IC, MC34064, UNDERVOLTAGE SENSING CIRCUIT, TO-226AA	PT1110 UMC34064P	TO226AA(RIG)-V
1	U9	72-3187	IC, MCH12140, PHASE-FREQUENCY DETECTOR, SO8	PT1563 UMCH12140-S	SO8
5	U1 U4-7	72-1480	IC, NJM4580, DUAL OP-AMP, SO8	PT1374 UNJM4580-S	SO8
1	U22	72-3064-00V1.00	IC, 27E257, 32K X 8, 120nS, EEPROM, dbx TYPE IV OPTION, V1.00	PT1486 UP723064	PLCC/R-32
1	U13	72-3042	IC, TMS57070FFT, DSP, QFP100-14X20	PT1117 UTMS57070-Q	QFP100-14X20
1	X2	76-0318	XTAL, 11.2896MHz, METAL CAN, STANDARD PACKAGE	PT1330 Y11.2896M760318	XTALV
1	Y2	76-0341	VCXO, 11.2896MHz, METAL CAN, 4 PIN, .300 X .600 Lead SPC., DIP14-4	PT1488 Y11.2896M760341	OSC4300600
1	X1	76-0319	XTAL, 12.288MHz, METAL CAN, STANDARD PACKAGE	PT1331 Y12.288M760319	XTALV
1	Y1	76-0340	VCXO, 12.288MHz, METAL CAN, 4 PIN, .300 X .600 LEAD SPC., DIP14-4	PT1487 Y12.288M760340	OSC4300600